

Title (en)  
MATERIAL FOR ORGANIC ELECTROLUMINESCENT ELEMENTS, AND ORGANIC ELECTROLUMINESCENT ELEMENT USING SAME

Title (de)  
MATERIAL FÜR EIN ORGANISCHES ELEKTROLUMINESZIERENDES ELEMENT UND ORGANISCHES ELEKTROLUMINESZIERENDES ELEMENT DAMIT

Title (fr)  
MATÉRIAU POUR DES ÉLÉMENTS ÉLECTROLUMINESCENTS ORGANIQUES ET ÉLÉMENT ÉLECTROLUMINESCENT ORGANIQUE UTILISANT CE DERNIER

Publication  
**EP 3054495 A4 20170510 (EN)**

Application  
**EP 14846848 A 20140828**

Priority

- JP 2013204374 A 20130930
- JP 2014072534 W 20140828

Abstract (en)  
[origin: EP3054495A1] Provided are an organic electroluminescent device (organic EL device) that is improved in luminous efficacy, sufficiently secures driving stability, and has a simple construction, and a material for organic EL devices to be used in the organic EL device. The material for organic EL devices is a material for organic EL devices formed of an ortho-carborane compound having a structure in which a silyl group (-SiR<sub>3</sub>) is bonded to a divalent ortho-carborane group represented by C<sub>2</sub>B<sub>10</sub>H<sub>10</sub> through an aromatic group. In addition, the organic electroluminescent device is an organic electroluminescent device having a structure in which an anode, an organic layer, and a cathode are laminated on a substrate, the device having an organic layer containing the ortho-carborane compound, and the organic layer being a light-emitting layer, an electron-transporting layer, a hole-blocking layer, or an exciton-blocking layer.

IPC 8 full level  
**H01L 51/54** (2006.01); **C07F 7/08** (2006.01); **C07F 7/10** (2006.01)

CPC (source: EP KR US)  
**C07F 7/0803** (2013.01 - EP KR US); **C07F 7/0814** (2013.01 - EP KR US); **C09K 11/06** (2013.01 - KR); **H10K 85/321** (2023.02 - EP KR US); **H10K 85/40** (2023.02 - EP KR US); **H10K 85/615** (2023.02 - EP KR US); **H10K 85/626** (2023.02 - EP KR US); **H10K 85/654** (2023.02 - EP KR US); **H10K 85/6572** (2023.02 - EP KR US); **C09K 2211/1096** (2013.01 - KR); **H10K 50/18** (2023.02 - EP KR US)

Citation (search report)

- [A] WO 2013088934 A1 20130620 - NIPPON STEEL & SUMIKIN CHEM CO [JP] & EP 2793280 A1 20141022 - NIPPON STEEL & SUMIKIN CHEM CO [JP]
- [A] US 2012319088 A1 20121220 - LEE SUN-HEE [KR], et al
- [A] KYUNG-RYANG WEE ET AL: "Carborane-Based Optoelectronically Active Organic Molecules: Wide Band Gap Host Materials for Blue Phosphorescence", JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 134, no. 43, 11 October 2012 (2012-10-11), pages 17982 - 17990, XP055359223, ISSN: 0002-7863, DOI: 10.1021/ja3066623
- See also references of WO 2015045718A1

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